



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,747	02/09/2004	Artoun Ramian	6500-016	6131
7590	11/09/2005		EXAMINER	
Law Office of William B. Ritchie 43 Jackson Street Concord, NH 03301			WASHBURN, DANIEL C	
			ART UNIT	PAPER NUMBER
			2672	
DATE MAILED: 11/09/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/774,747	RAMIAN, ARTOUN
	Examiner Dan Washburn	Art Unit 2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 09 February 2004.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-13 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-13 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 09 February 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities:

Page 1 line 13 reads, "representation of such information, as oppose to audio..."

It should read, "representation of such information, as opposed to audio..."

Page 2 line 9 reads, "tools is to provide increase the font size..."

It should read, "tools is to provide an increase in the font size..."

Page 3 line 15 reads, "...move closer to a further away from the"

It should read, "...move closer to or further away from the"

Appropriate correction is required.

Claim Objections

Claim 7 is objected to because of the following informalities: four lines from the top of claim 7 reads, "wherein the scene includes the user have at least identifiable points on the user" which is unclear. A statement along the lines of, "wherein the scene includes the user having at least identifiable points on the user" would clarify the matter.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 2003/0234799) in view of Stern et al. (US 2002/0047828).

Regarding claim 1, Lee describes a visual display unit having an image that is to be viewed by a user, said visual display unit comprising: a central processing unit connected to said visual display unit; and sensor means of measuring the distance between the user and said visual display unit; and dynamically sizing means, controlled by said central processing unit, for changing the size of an image so that the image appears to the user as being of constant size when the user moves closer or further from said visual display unit as provided by said sensor means; and memory storage means for storing the information about the corresponding magnification of the image previously used. For example, Lee offers Figure 1, which is a control block diagram of an image size adjusting system. The computer main body 1 is a central processing unit that is connected to display apparatus 10, which is a visual display unit. Display apparatus 10 also contains a distance sensor unit 11, which measures the distance between the user and the visual display unit and dynamically updates the size of the displayed image so that it appears of constant size when the user moves closer or further from the visual display unit as provided by the sensor means paragraphs 0029

Art Unit: 2672

and 0030. Lee also includes that the software program is resident in random access memory (RAM) storage means and that the user can alter the magnification ratio as he chooses. The changes made to the magnification ratio are saved in the software program's settings, and are therefore stored to the allotted RAM paragraph 0030 and

Figure 4. Lee doesn't describe storing information about the user's eyesight.

However, Stern describes storing information about the user's eyesight. For example, Stern discloses software that is designed to minimize a user's eyestrain while viewing a monitor. The invention comprises a distance sensor, monitor, and computer, as illustrated in Figure 1. The software offers a series of vision tests, including tests to determine the optimal viewing distance and minimum viewing distance paragraphs 0023 and 0027. The results from these tests are stored in the memory of the computer system and are used by the program to adjust the image as needed to minimize the viewer's eyestrain 0036 and 0037. It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Lee the ability to store information about the user's eyesight, as taught by Stern, in order to give the user the ability to better customize the magnification control by entering eyesight information that would allow the program to adjust for vision problems, such as being nearsighted or farsighted.

Concerning claims 4 and 6, Lee describes a visual display unit further comprising user activation means for responding to sudden changes in distance of the user from said visual display unit as measured by the sensor means, wherein said user activation means when activated causes the image to change in magnification. For example, Lee includes a system that automatically adjusts the size of the displayed image based on

Art Unit: 2672

the changed distance between the user and the visual display unit as measured by the sensor paragraphs 0008 and 0010. The user activates a change in magnification of the image based on the change in the distance he puts between himself and the visual display unit. Any change of distance, which includes sudden and gradual changes, between the visual display unit and the user is considered a user activation of the magnification software.

Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 2003/0234799) in view of Stern et al. (US 2002/0047828) and further in view of Williams (2003/0210258).

As to claim 2, Lee in view of Stern describes a visual display unit that adjusts the size of its display based on the change in distance between a user and the monitor in order to make the display appear a constant size, as was described in the rejection of claim 1. Lee in view of Stern doesn't describe that the sensor used to detect the distance between a user and the monitor is an ultrasonic tape measure.

However, Williams describes an ultrasonic tape measure. For example, Williams includes a display apparatus wherein the image zooms and scrolls based on ultrasonic sensors that detect the position of a user relative to the display paragraph 0006. The ultrasonic sensors are used to establish the distance between the user and the display apparatus, and are therefore considered ultrasonic tape measures paragraph 0018.

With regard to claim 5, Williams describes a user activation means that when activated causes the image to scroll. For example, Williams offers Figure 6, which illustrates a user moving from left to right 621 and 622, and the displayed image

Art Unit: 2672

scrolling from left to right on the screen 631 and 632 in response to the movement, which is considered a user activated scrolling function paragraph 0040. It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Lee in view of Stern the scrolling function as taught by Williams in order to give the user the added option of scrolling around a magnified image by moving from side to side in front of the sensors rather than requiring the user to scroll using a mouse or keyboard, which may prove to be a burden if, for example, the user is giving a presentation and can't easily move back and forth between the displayed images and a keyboard and mouse.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 2003/0234799) in view of Stern et al. (US 2002/0047828) and further in view of Kuga (US 5,686,940).

Regarding claim 3, Lee in view of Stern describes a visual display unit that alters the magnification of an image based on the distance between sensors associated with the visual display unit and a user, as described in the rejection of claim 1. Lee in view of Stern doesn't describe that the central processing unit has a refresh rate of less than or equal to 25 times per second to provide smoother transition in the size of the image as the image is magnified.

However, Kuga describes that the central processing unit has a refresh rate of less than 25 times per second to provide smoother transition in the size of the image as the image is magnified. For example, Kuga includes a display that changes the size of the image based on the proximity of the user using a CCD camera as a distance

Art Unit: 2672

sensor. The distance sensor detects the proximity of a user and outputs a signal every half a second describing the distance between the user and the sensor, and the computer decides how much, if any, the image should be enlarged or reduced column 2 lines 48-55. It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Lee in view of Stern the refresh rate of half a second as taught by Kuga in order to create a software program that doesn't appear to continuously change the magnification level of an image based on trivial user movement but still decreases or enlarges the size of an image with little delay when a valid zoom command is received.

Claims 7, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 2003/0234799) in view of Grover (2003/0122777).

Concerning claim 7, Lee describes a visual display unit having an image that is to be viewed by a user, said visual display unit comprising: a central processor unit connected to visual display unit; and dynamically sizing means, controlled by said central processor unit, for changing the size of the image so that the image appears to the user as being of constant size when the user moves closer or further away from said visual display unit, as described in the rejection of claim 1. Lee doesn't describe that the visual display unit uses a web camera and still image capture means to capture a scene provided by said web camera, wherein the scene includes the user having at least identifiable points on the user such that said central processing unit calculates the distance between said visual display unit and the user.

However, Grover describes a visual display unit that uses a web camera and still image capture means to capture a scene provided by said web camera, wherein the scene includes the user having at least user identifiable points on the user such that said central processing unit calculates the distance between said visual display unit and the user. For example, Grover describes a computer system that enhances the picture visibility and adjusts the sensitivity of a microphone and the volume level of speakers based on the detected distance between a user and a built in camera paragraphs 0009, 0013, and 0014. The camera is also described as functioning as a teleconference tool, and is therefore considered a web camera paragraph 0017. The camera analyzes a set of images that represent a scene as it slowly adjusts the focus of the lens to resolve the image. Once the scene is in focus the approximate distance to the user is calculated based on the focal length of the lens paragraph 0014. The camera establishes user identifiable points on the user, such as facial features and hair, to decide whether or not the user is in focus, then the central processing unit calculates the distance between the user and the visual display unit. It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Lee the web camera as taught by Grover in order to implement hardware for measuring the distance between a user and a display unit that has the versatility of functioning as a distance measurement device, digital camera, video camera, or web camera rather than just a distance measurement device, as is the case with other potential implementations.

Regarding claims 11 and 13, Lee includes a visual display unit further comprising user activation means for responding to sudden changes in the measured distance of

Art Unit: 2672

the user from said visual display unit, wherein the user activation means when activated causes the image to change in magnification, as described in the rejection of claims 4 and 6.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 2003/0234799) in view of Grover (2003/0122777) and further in view of Stern (US 2002/0047828).

As to claim 8, Lee in view of Grover describes a visual display unit comprising a memory storage means for storing magnification information of the image previously used. For example, Lee describes a software program that runs on a computer system and is resident in random access memory (RAM) storage means. The software program magnifies the image based on the distance between the display unit and the user and the user can alter the magnification ratio as he chooses. The changes made to the magnification ratio are saved in the software program's settings, and are therefore stored to the allotted RAM paragraph 0030 and Figure 4. Lee in view of Grover doesn't describe storing information about the user's eyesight.

However, Stern describes storing information about the user's eyesight, as described in the rejection of claim 1. It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Lee in view of Grover the ability to store information about the user's eyesight, as taught by Stern, in order to give the user the ability to better customize the magnification control by entering eyesight information that would allow the program to adjust for vision problems, such as being nearsighted or farsighted.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 2003/0234799) in view of Grover (2003/0122777) and further in view of Mattsson (US 2003/0076293).

With regard to claim 9, Mattsson describes a method comprising at least two colored disks which are associated with the user and which serve as the at least two identifiable points on the user such that the distance to the user is calculated. For example, Mattsson describes a gesture recognition system that uses sets of markers to establish the location and hand gestures of a person paragraphs 0007 and 0008. The invention includes Alfa markers and Beta markers. The Alfa markers are used to help keep track of the user. They may be worn on the shoulders, which are considered two identifiable points, and they allow the system to calculate the horizontal line or plane that the user resides in paragraph 0099 and 0100. The markers may be different shapes such as a two dimensional circle, which is also considered a disk, or a two dimensional square, and the markers can be a solid color or a combination of colors to help the system identify the type of marker paragraphs 0115-0122. It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Lee in view of Grover the system of establishing the distance from the camera to the user by means of using easily identifiable markers as taught by Mattsson in order to utilize an accurate method of establishing the distance between the camera and a user that isn't limited by the focusing capabilities of the camera and won't give incorrect magnification results by focusing on the wrong person.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 2003/0234799) in view of Grover (2003/0122777) and further in view of Kuga (US 5,686,940).

Concerning claim 10, Lee in view of Grover describes a visual display unit that alters the magnification of an image based on the distance between the user and the display as detected by the camera, as discussed in the rejection of claim 7. Lee in view of Grover doesn't describe that the central processing unit has a refresh rate of less than or equal to 25 times per second to provide smoother transition in the size of the image as said sizing means alters the magnification of the image.

However, Kuga describes that the central processing unit has a refresh rate of less than or equal to 25 times per second to provide smoother transition in the size of the image as said sizing means alters the magnification of the image, as disclosed in the rejection of claim 3. It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Lee in view of Grover the refresh rate of half a second as taught by Kuga in order to create a software program that doesn't appear to continuously change the magnification level of an image based on trivial user movement but still decreases or enlarges the size of an image with little delay when a valid zoom command is received.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 2003/0234799) in view of Grover (2003/0122777) and further in view of Williams (US 2003/0210258).

As to claim 12, Lee in view of Grover describes a visual display unit that comprises user activation means to magnify an image. Lee in view of Grover doesn't describe that the user activation means when activated causes the image to scroll.

However, Williams describes a visual display unit wherein the user activation means when activated causes the image to scroll, as described in the rejection of claim 5. It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Lee in view of Grover the scrolling function as taught by Williams in order to give the user the added option of scrolling around a magnified image by moving from side to side in front of the sensors rather than requiring the user to scroll using a mouse or keyboard, which may prove to be a burden if, for example, the user is giving a presentation and can't easily move back and forth between the displayed images and a keyboard and mouse.

Art Unit: 2672

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Washburn whose telephone number is (571) 272-5551. The examiner can normally be reached on Monday through Friday 8:30 a.m. to 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (571) 272-7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DW

DW

10/31/05


RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600
(11/2/05)